

31, 2005

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Commissioner for Patents Alexandria, VA 22313-1450

Re:

U.S. Patent Application Serial No. 10/765,202

For: SUB-SYMBOL PARALLEL INTERFERENCE CANCELLATION

Our Reference No: 58010-00602

Dear Sir:

Transmitted herewith for filing in the U.S. Patent and Trademark Office in connection with the above-referenced application are the following documents:

- (1) Information Disclosure Statement (2 pages);
- (2) PTO/SB/08A (1 page); and
- (3) Nine (9) non-U.S. cited references.

This Information Disclosure Statement is being submitted before the mailing of a first Office Action on the merits. No certification or fee is required.

Please date-stamp the enclosed copy of this letter, acknowledging receipt of the aboveidentified documents, and return it to us.

Sincerely yours,

CHRISTOPHER M. 7OBTN, Reg. No. 40,290

**Enclosures** 

CMT/la



# IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANTS:

James P. Dunyak et al.

APPLICATION NO.:

10/765,202

FILING DATE:

January 28, 2004

TITLE:

Sub-Symbol Parallel Interference Cancellation

**EXAMINER:** 

Unknown

**GROUP ART UNIT:** 

2631

ATTY. DKT. NO.:

58010-00602

Commissioner for Patents Alexandria, VA 22313-1450

# **Information Disclosure Statement**

## Dear Sir:

In accordance with the provisions of 37 C.F.R. §§ 1.56, and 1.97-1.98, the attention of the U.S. Patent and Trademark Office is hereby directed to the references listed on the attached form PTO/SB/08A. Enclosed is a copy of each listed non-U.S. reference that may be material to the examination of this application, and for which there may be a duty to disclose.

The filing of this Information Disclosure Statement shall not be construed as a representation regarding the completeness of the list of references, or that inclusion of a reference in this list is an admission that it is prior art or is pertinent to this application, or that a search has been made, or as an admission that the information listed is, or may be construed to be, material to patentability, or that no other material information exists, and shall not be construed as an admission against interest in any manner.

It is respectfully requested that the references be expressly considered during the prosecution of this application, and that the references be made of record therein and appear among the "References Cited" on any patent to issue therefrom.

This Information Disclosure Statement is being submitted before the mailing of a first Office Action on the merits. Applicants submit that no certification or fee is required for consideration of this Information Disclosure Statement.

If any additional fees are required, the Commissioner is hereby invited to contact Applicants' undersigned representative to arrange payment.

Date: March 31, 2005

Respectfully submitted

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#### ATTY DOCKET NO. APPLICATION NO 58010-00602 10/765,202 REFERENCES CITED BY APPLICANT APPLICANT (Use several sheets if necessary) James P. Dunyak MAR 3 1 2005 GROUP FILING DATE 2631 January 28, 2004 **U.S. PATENT DOCUMENTS** FILING DATE IF APPROPRIATE \*EXAMINER INITIAL DATE 03-24-1992 DOCUMENT NUMBER NAME CLASS SUBCLASS

### A02 FOREIGN PATENT DOCUMENTS CLASS SUBCLASS DOCUMENT NUMBER DATE COUNTRY TRANSLATION YES NO B01 B02

Zeger et al.

375

5,099,493

A01

OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, Etc.)		
C01	Abrams, B.S. et al., "Efficiently Structured CDMA Receiver With Near-Far Immunity", <u>IEEE Transactions on Vehicular Technology</u> , February 1995, 44(1), pp. 1-13.	
C02	Dunyak, J. et al., "A Chip-Level Interference Cancellation Technique for CDMA", <u>Submitted to IEEE WCNC</u> , 2003.	
C03	Dunyak, J. et al., "Multiuser Detection Using Interference Cancellation at Each Chip", <u>Proceedings of IEEE ISWC</u> , September 23-24, 2002.	
C04	Dunyak, J., "Multiuser Detection of Pulse Amplitude Modulation CDMA Using a Decoupled Kalman Filter Technique", Submitted to IEEE VTC, September 24-28, 2002.	
C05	Dunyak, J. et al., "A Decoupled Kalman Filter Technique for Multiuser Detection of Pulse Amplitude Modulation CDMA", Proceedings of the WOC, July 17-19, 2002.	
C06	Dunyak, J. et al., "A Kalman-PIC Multistage Technique to Reduce Multiaccess Interference", <u>Proceedings of the IEEE ISWC</u> , September 23-24, 2002.	
C07	Flanagan, B. et al., "Performance of a Joint Kalman Demodulator for Multiuser Detection", <u>Proceedings of IEEE VTC</u> , September 24-28,2002.	
C08	Lim, T.J. et al., "An Asynchronous Multiuser CDMA Detector Based on the Kalman Filter", <u>IEEE Journal on Selected Areas in Communications</u> , December 1998, 16(9), pp. 1711-1722.	
C09	Suprin, C. et al., "A Kalman Filter Approach to Joint Channel Estimation and Multiuser Detection", Submitted to WOC, July 17-19, 2002.	
C10	Verdu, S., "Multiuser Detection", Cambridge University Press, 1998, pp. 1-393.	
C11		
C12		
C13		
C14		
C15		

EXAMINER	DATE CONSIDERED

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.